



“ The tool is a platform that should allow the extension workers to collect pre-campaign data, namely: activities to be carried out and forecasts for the use of inputs according to the size of the farm. The tool has 03 parts: a communication part, another information and a last one on the processing and the analysis of the data of the producers. It is essentially on this last part that we work » ,

Francis YARO  
in charge of development, ECODATA



## How to support the co-design of ICT-based solutions for modernizing advisory services provided by farmers organizations ?

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### The role for the CIRAD/CDAIS coaching team

#### Allow new idea to emerge

During the initial capacity needs assessment organized by the CIRAD/CDAIS coaching team in 2016, the members of the Réseau-Gestion considered it important to find an ICT-based solution that would speed up the collection, processing, analysis and transmission of technical and economic data for producer advice.

The digitalization of the MAFF is expected to share information in a relatively short time for timely decision-making at a lower cost.

After fifteen years of experimentation and implementation, questions now arise on the scaling required to increase the number of producers with access to this advisory service and the institutional and financial sustainability of advisory mechanisms. Marc Gansonré, farmer and founder member was clear.

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#### Create a pioneering collaboration between ECODATA and the “Réseau-Gestion

The CIRAD/CDAIS team met Ecodata West Africa, an agency specialised in developing ICT solutions. They invited them to participate in the marketplace in July 2017 in Ouagadougou, resulting in an agreement to develop a proposal to digitise advisory services with the Réseau-Gestion network.

“ICTs are not turnkey solutions: they require collaborative innovation with breakthrough organizations that usually don't intervene in the agricultural development sector, such as developers of ICT-based solutions, incubators, IT or telecommunications companies, institute for research in computer science or intellectual property rights organizations. Farmers' organizations who want to integrate ICT in their extension services have to face many technical challenges but also organizational challenges because they cannot provide such services by themselves. They need to engage in partnerships with the leading developer of ICT-based solution and with telecommunication company that provide the infrastructure. Those organizations need to learn to work together and to think differently to develop a joint innovation. The CDAIS coaching team helped such an innovation niche partnership during three years which successfully led to the co-design of a tailor-made digital platform that modernize the extension services of a network of seven farmers' organizations.” (A. Toillier AFP)

#### Farmers' organisations aiming to innovate

In 2003, seven farmer organisations gathered to create the Réseau-Gestion network to support each other in implementing new advisory approaches that broke with traditional top-down production-focused extension: the 'management advice for family farms' (MAFF). It is based on adult learning methods including training, exchanges of experiences, valorization of indigenous knowledge, and decision-making support based on technico-economical data analysis.

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At the beginning, Ecodata was thinking only of a simple challenge, to digitise survey questionnaires for use via tablets, and storing data on a remotely accessible virtual platform. But their approach was still unknown to most people, requiring several meetings to find good modes of communication, and to agree on what is a digital platform, how it works and how it can meet farmers' needs. And very quickly, the coaching team found that support was needed to strengthen Ecodata's own capacity to carry out this development.

“The working method of the CIRAD/CDAIS coaching team helped us to clarify the modalities of collaboration among the Réseau-Gestion. They brought farmer organisations closer together”.

Mahamoudou Korgbo, family farming advisor,



### New technical and functional capacities

#### A training on design-thinking approach by Orange Lab

Ecodata quickly realized that it would not be possible for network members to list every demand that the digital platform must meet, it is difficult to anticipate the characteristics of a new tool that has never been used before, and such reflection is in principal rather theoretical. “In such an innovation process, users cannot express their needs well. The Ecodata needed to observe users in the long run, in an intuitive process that required a certain kind of thought from project leaders, based on design-thinking approaches and using tools like ecosystem maps and experience cards.” (Véronique Henry of the supporting organisation Orange Lab)



#### Developing technical capacities

“This experience allowed me to strengthen my skills as a computer scientist. This is a first for me and I acquired a lot of knowledge at every step, but collaboration with farmers' organisations at the beginning was difficult. However with more exchanges and sharing between the coaching team, the network, and with practical tests, we adapted the tool to the needs of the advisors. This tool will boost the agricultural sector and allow both advisors and producers to better organize and save time and energy.” (Francis Yaro of Ecodata in charge of developing the digital platform)

#### Developing capacities to collaborate

Collaboration between network members was strengthened with improved communication especially around the identified common problem of the need to modernise the advisory services. Creating and maintaining the new collaboration with Ecodata was also a major change. This experience also improved relations between the Ministry of Agriculture and the producer organisations, especially through involvement in the reflection and revision workshop prior to implementation of the Council Farm Management Program (CGEA) promoted by the ministry.

#### Developing capacities to anticipate the sustainability of the digital platform

“Several farmers' organizations of the Réseau-Gestion network have bought by themselves computer equipment (tablet and computer) in order to be able to use the digital platform. In addition, others are included in their strategic plan to capture external funding to do so. It demonstrates that farmers' organizations are able to make investments in their own development once they are convinced that they will benefit from such solutions.” (Marc Gnomou innovation facilitator)

The coaching team helped the two partners, the Réseau-Gestion and Ecodata, to address two main issues for a sustainable use of the platform: the business model and the property rights for commercial use of the data collected.

### Creating an enabling environment

The CIRAD/CDAIS coaching team supported Ecodata in organising a national forum to explore conditions for continued interactions to overcome obstacles to the development of e-agriculture in Burkina Faso.

“The fact that actors are meeting to discuss common issues is a winning step!”

Souleymane Jules Gaye,  
NGO RONGEAD

“I discovered the existence of many actors and initiatives in e-agriculture”

Albert Traore, extension officer  
with DVRD/DGPV)

“Such a forum allows progress in finding solutions to strengthen the links between research and development”

Issa Sidibe, Permanent Secretary for the  
Coordination of Agricultural Sector Policies.



Bringing together 30 participants, a forum in March 2018 helped define synergies between actors around the issues of the design, viability access and sustainability of ICT solutions